RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/574,787
Source: IFW
Date Processed by STIC: 5/5/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/574,787 CRF Edit Date: 5/5/06
Edited by: AR

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

/ Deleted: / invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

_____

___ Moved responses to same line as heading/numeric identifier, specifically:

_____

___ Other:

_____
_____
_____

Revised 09/09/2003

IFWP

RAW SEQUENCE LISTING DATE: 05/05/2006
PATENT APPLICATION: **US/10/574,787** TIME: 16:43:47

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\05052006\J574787.raw**

3 <110> APPLICANT: Bayer HealthCare AG
5 <120> TITLE OF INVENTION: Diagnostics and Therapeutics for Diseases Associated with N-Acetylated
6 Alpha-Linked Acidic Dipeptidase-Like 1 (NAALADASE-like1)
8 <130> FILE REFERENCE: BHC 03 01 003
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/574,787
C--> 10 <141> CURRENT FILING DATE: 2006-04-06
10 <160> NUMBER OF SEQ ID NOS: 5
12 <170> SOFTWARE: PatentIn version 3.1
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 2320
16 <212> TYPE: DNA
17 <213> ORGANISM: Homo sapiens
19 <220> FEATURE:
20 <221> NAME/KEY: misc_feature
21 <222> LOCATION: (315)..(315)
22 <223> OTHER INFORMATION: n=a,c,g,t
24 <400> SEQUENCE: 1
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26 cctcttgggg ctggggatca tcctcggcca ctttgccatc cccaaaaaag ccaactcact 120
27 ggcccccag gacctggacc tggagatcct ggagaccgtc atggggcagc tggatgccca 180
28 caggatccgg gagaacctca gagaactctc cagggagcca cacctggcct ccagccctcg 240
29 ggatgaggac ctggtgcagc tgctgctgca gcgctggaag gacccagagt caggcctgga 300
W--> 30 ctcggccgag gcctncacgt acgaagtgct gctgtccttc cctagccagg agcagcccaa 360
31 cgtcgtggac atcgtgggcc ccactggggg catcatccac tcctgccacc ggactgagga 420
32 gaacgtgacc ggggagcaag gggggccaga tgtggtacaa ccctatgctg cctatgctcc 480
33 ttctggaacc ccacagggcc tcctcgtcta tgccaaccgg ggcgcggaag aagactttaa 540
34 ggagctacag actcagggca tcaaacttga aggcaccatt gccctgactc gatatggggg 600
35 tgtagggcgt ggggccaagg ctgtgaacgc tgccaagcac ggggtagctg gggtgctggt 660
36 gtacacagac cctgccgaca tcaacgatgg gctgagctca cccgacgaaa cctttcccaa 720
37 ctcctggtac ctgcccccct caggagtgga gcgaggctcc tactacgagt attttgggga 780
38 ccctctgact ccctaccttc cagccgtccc ctcttccttc cgcgtggacc ttgccaatgt 840
39 ctccggattt cccccaattc ctacacagcc cattggcttc caggatgcaa gagacctgct 900
40 ctgtaacctc aacggaactt tggccccagc cacctggcag ggagcactgg gctgccacta 960
41 caggttgggt cccggcttcc ggcctgacgg agacttccca gcagacagcc aggtgaatgt 1020
42 gagcgtctac aaccgcctgg agctgaggaa ctcttccaac gtcctgggca tcatccgtgg 1080
43 ggctgtggag cctgatcgct acgtgctgta tgggaaccac cgagacagct gggtgcacgg 1140
44 ggctgtggac cccagcagtg gcaccgccgt cctcctggag ctctcccgtg tcctggggac 1200
45 cctgctgaag aagggcacct ggcgtcctcg cagatcaatc gtgtttgcga gctgggggc 1260
46 tgaggagttt gggctcattg gctccacgga attcacagaa gagttcttca acaagctgca 1320
47 ggagcgcacg gtggcctaca tcaacgtgga catctcggtg tttgccaacg ctacccttag 1380
48 ggtgcagggg acgccccctg tccagagcgt cgtcttctct gcaaccaaag agatccgctc 1440
49 accaggccct ggcgacctga gcatctacga caactggatc cggtacttca accgcagcag 1500
50 cccggtgtac ggcctggtcc ccagcttggg ttctctgggt gctggcagcg actatgcacc 1560

RAW SEQUENCE LISTING DATE: 05/05/2006
PATENT APPLICATION: **US/10/574,787** TIME: 16:43:47

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\05052006\J574787.raw**

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     51 cttcgttcac ttcctgggca tctcctccat ggacattgcc tatacctatg accggagcaa   1620
     52 gacttcagcc aggatctacc ccacctacca cacagccttt gacacctttg actatgtgga   1680
     53 caagtttttg gacccgggct tcagcagcca tcaggctgtg gcccggacag cggggagtgt   1740
     54 gattctccgg ctcagtgaca gcttcttcct gcccctcaaa gtcagtgact acagtgagac   1800
     55 actccgcagc ttcctgcagg cagcccagca agatcttggg gccctgctgg agcagcacag   1860
     56 catcagcctg gggcctctgg tgactgcagt ggagaagttt gaggcagaag ctgcagcctt   1920
     57 gggccaacgc atatcaacac tgcagaaggg cagccctgac cccctgcagg tccggatgct   1980
     58 caatgaccag ttgatgctct tggaacggac ctttctgaac cctagagcct tcccagagga   2040
     59 acgctactac agccatgtgc tctgggcacc ttcgcacggg ctccgtagtc acattccggg   2100
     60 gctatccaat gcctgctcca gggccaggga cacagcttct ggatctgaag cttgggctga   2160
     61 ggtccagaga cagctcagca ttgtggtgac agccctggag ggtgcggcag ccaccctgag   2220
     62 gcctgtggct gacctctgac cccagccctc tttcttcagc cctcccttta ctccggtgct   2280
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     65 <210> SEQ ID NO: 2
     66 <211> LENGTH: 740
     67 <212> TYPE: PRT
     68 <213> ORGANISM: Homo sapiens
     70 <220> FEATURE:
     71 <221> NAME/KEY: MISC_FEATURE
     72 <222> LOCATION: (100)..(100)
     73 <223> OTHER INFORMATION: X=any
     75 <400> SEQUENCE: 2
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     78 Leu Gly Leu Gly Ile Ile Leu Gly His Phe Ala Ile Pro Lys Lys Ala
     79             20                  25                  30
     80 Asn Ser Leu Ala Pro Gln Asp Leu Asp Leu Glu Ile Leu Glu Thr Val
     81         35                  40                  45
     82 Met Gly Gln Leu Asp Ala His Arg Ile Arg Glu Asn Leu Arg Glu Leu
     83     50                  55                  60
     84 Ser Arg Glu Pro His Leu Ala Ser Ser Pro Arg Asp Glu Asp Leu Val
     85 65                  70                  75                  80
     86 Gln Leu Leu Leu Gln Arg Trp Lys Asp Pro Glu Ser Gly Leu Asp Ser
     87                 85                  90                  95
W--> 88 Ala Glu Ala Xaa Thr Tyr Glu Val Leu Leu Ser Phe Pro Ser Gln Glu
     89             100                 105                 110
     90 Gln Pro Asn Val Val Asp Ile Val Gly Pro Thr Gly Gly Ile Ile His
     91         115                 120                 125
     92 Ser Cys His Arg Thr Glu Glu Asn Val Thr Gly Glu Gln Gly Gly Pro
     93     130                 135                 140
     94 Asp Val Val Gln Pro Tyr Ala Ala Tyr Ala Pro Ser Gly Thr Pro Gln
     95 145                 150                 155                 160
     96 Gly Leu Leu Val Tyr Ala Asn Arg Gly Ala Glu Glu Asp Phe Lys Glu
     97                 165                 170                 175
     98 Leu Gln Thr Gln Gly Ile Lys Leu Glu Gly Thr Ile Ala Leu Thr Arg
     99             180                 185                 190
    100 Tyr Gly Gly Val Gly Arg Gly Ala Lys Ala Val Asn Ala Ala Lys His
    101         195                 200                 205
    102 Gly Val Ala Gly Val Leu Val Tyr Thr Asp Pro Ala Asp Ile Asn Asp
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RAW SEQUENCE LISTING DATE: 05/05/2006
PATENT APPLICATION: US/10/574,787 TIME: 16:43:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05052006\J574787.raw

```
103     210                 215                 220
104 Gly Leu Ser Ser Pro Asp Glu Thr Phe Pro Asn Ser Trp Tyr Leu Pro
105 225                 230                 235                 240
106 Pro Ser Gly Val Glu Arg Gly Ser Tyr Tyr Glu Tyr Phe Gly Asp Pro
107                 245                 250                 255
108 Leu Thr Pro Tyr Leu Pro Ala Val Pro Ser Ser Phe Arg Val Asp Leu
109             260                 265                 270
110 Ala Asn Val Ser Gly Phe Pro Pro Ile Pro Thr Gln Pro Ile Gly Phe
111         275                 280                 285
112 Gln Asp Ala Arg Asp Leu Leu Cys Asn Leu Asn Gly Thr Leu Ala Pro
113     290                 295                 300
114 Ala Thr Trp Gln Gly Ala Leu Gly Cys His Tyr Arg Leu Gly Pro Gly
115 305                 310                 315                 320
116 Phe Arg Pro Asp Gly Asp Phe Pro Ala Asp Ser Gln Val Asn Val Ser
117                 325                 330                 335
118 Val Tyr Asn Arg Leu Glu Leu Arg Asn Ser Ser Asn Val Leu Gly Ile
119             340                 345                 350
120 Ile Arg Gly Ala Val Glu Pro Asp Arg Tyr Val Leu Tyr Gly Asn His
121         355                 360                 365
122 Arg Asp Ser Trp Val His Gly Ala Val Asp Pro Ser Ser Gly Thr Ala
123     370                 375                 380
124 Val Leu Leu Glu Leu Ser Arg Val Leu Gly Thr Leu Leu Lys Lys Gly
125 385                 390                 395                 400
126 Thr Trp Arg Pro Arg Arg Ser Ile Val Phe Ala Ser Trp Gly Ala Glu
127                 405                 410                 415
128 Glu Phe Gly Leu Ile Gly Ser Thr Glu Phe Thr Glu Glu Phe Phe Asn
129             420                 425                 430
130 Lys Leu Gln Glu Arg Thr Val Ala Tyr Ile Asn Val Asp Ile Ser Val
131         435                 440                 445
132 Phe Ala Asn Ala Thr Leu Arg Val Gln Gly Thr Pro Pro Val Gln Ser
133     450                 455                 460
134 Val Val Phe Ser Ala Thr Lys Glu Ile Arg Ser Pro Gly Pro Gly Asp
135 465                 470                 475                 480
136 Leu Ser Ile Tyr Asp Asn Trp Ile Arg Tyr Phe Asn Arg Ser Ser Pro
137                 485                 490                 495
138 Val Tyr Gly Leu Val Pro Ser Leu Gly Ser Leu Gly Ala Gly Ser Asp
139             500                 505                 510
140 Tyr Ala Pro Phe Val His Phe Leu Gly Ile Ser Ser Met Asp Ile Ala
141         515                 520                 525
142 Tyr Thr Tyr Asp Arg Ser Lys Thr Ser Ala Arg Ile Tyr Pro Thr Tyr
143     530                 535                 540
144 His Thr Ala Phe Asp Thr Phe Asp Tyr Val Asp Lys Phe Leu Asp Pro
145 545                 550                 555                 560
146 Gly Phe Ser Ser His Gln Ala Val Ala Arg Thr Ala Gly Ser Val Ile
147                 565                 570                 575
148 Leu Arg Leu Ser Asp Ser Phe Phe Leu Pro Leu Lys Val Ser Asp Tyr
149             580                 585                 590
150 Ser Glu Thr Leu Arg Ser Phe Leu Gln Ala Ala Gln Gln Asp Leu Gly
151         595                 600                 605
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RAW SEQUENCE LISTING DATE: 05/05/2006
PATENT APPLICATION: US/10/574,787 TIME: 16:43:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05052006\J574787.raw

```
152 Ala Leu Leu Glu Gln His Ser Ile Ser Leu Gly Pro Leu Val Thr Ala
153     610                 615                 620
154 Val Glu Lys Phe Glu Ala Glu Ala Ala Ala Leu Gly Gln Arg Ile Ser
155 625                 630                 635                 640
156 Thr Leu Gln Lys Gly Ser Pro Asp Pro Leu Gln Val Arg Met Leu Asn
157                 645                 650                 655
158 Asp Gln Leu Met Leu Leu Glu Arg Thr Phe Leu Asn Pro Arg Ala Phe
159             660                 665                 670
160 Pro Glu Glu Arg Tyr Tyr Ser His Val Leu Trp Ala Pro Ser His Gly
161         675                 680                 685
162 Leu Arg Ser His Ile Pro Gly Leu Ser Asn Ala Cys Ser Arg Ala Arg
163     690                 695                 700
164 Asp Thr Ala Ser Gly Ser Glu Ala Trp Ala Glu Val Gln Arg Gln Leu
165 705                 710                 715                 720
166 Ser Ile Val Val Thr Ala Leu Glu Gly Ala Ala Ala Thr Leu Arg Pro
167                 725                 730                 735
168 Val Ala Asp Leu
169             740
171 <210> SEQ ID NO: 3
172 <211> LENGTH: 20
173 <212> TYPE: DNA
174 <213> ORGANISM: artificial sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: forward primer
179 <400> SEQUENCE: 3
180 ctggaaggac ccagagtcag                                              20
182 <210> SEQ ID NO: 4
183 <211> LENGTH: 20
184 <212> TYPE: DNA
185 <213> ORGANISM: artificial sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: reverse primer
190 <400> SEQUENCE: 4
191 tagggaagga cagcagcact                                              20
193 <210> SEQ ID NO: 5
194 <211> LENGTH: 19
195 <212> TYPE: DNA
196 <213> ORGANISM: artificial sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: probe
201 <400> SEQUENCE: 5
202 ctggactcgg ccgaggcct                                              19
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/05/2006
PATENT APPLICATION: US/10/574,787 TIME: 16:43:48

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05052006\J574787.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 315
Seq#:2; Xaa Pos. 100

VERIFICATION SUMMARY DATE: 05/05/2006
PATENT APPLICATION: **US/10/574,787** TIME: 16:43:48

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\05052006\J574787.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:30 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:300
L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:96

Raw Sequence Listing before editing (for reference only)

IFWP

RAW SEQUENCE LISTING DATE: 05/04/2006
PATENT APPLICATION: **US/10/574,787** TIME: 14:04:29

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\05042006\J574787.raw**

3 <110> APPLICANT: Bayer HealthCare AG
5 <120> TITLE OF INVENTION: Diagnostics and Therapeutics for Diseases Associated with N-Acetylated
6 Alpha-Linked Acidic Dipeptidase-Like 1 (NAALADASE-like1)
8 <130> FILE REFERENCE: BHC 03 01 003
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/574,787
C--> 10 <141> CURRENT FILING DATE: 2006-04-06
10 <160> NUMBER OF SEQ ID NOS: 5
12 <170> SOFTWARE: PatentIn version 3.1

ERRORED SEQUENCES

Does Not Comply
Corrected Diskette Needed

193 <210> SEQ ID NO: 5
194 <211> LENGTH: 19
195 <212> TYPE: DNA
196 <213> ORGANISM: artificial sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: probe
201 <400> SEQUENCE: 5
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E--> 204 BHC 03 1 003-Foreign Countries
W--> 206 - 5 -
E--> 209 BHC 03 1 003-Foreign Countries
W--> 211 - 1 -

Delete

VERIFICATION SUMMARY DATE: 05/04/2006
PATENT APPLICATION: **US/10/574,787** TIME: 14:04:30

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\05042006\J574787.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:30 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:300
L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:96
L:204 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:5
L:206 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:5
L:209 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:5
L:211 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:5